

PATENT CLAIMS

1. Construction kit for a spring-driven cable drum, **characterized by:**
a pre-assembled drum core (12) having a housing which forms a winding
surface for the cable and which contains at least one spiral spring (74,
5 74') and at least one spring anchor hub (80, 80'), the pre-assembled
drum core (12) having an axle channel passing right through it with no
axle, and the spring anchor hub (80, 80') being held in a substantially
axial way within the axle channel by the spiral spring (74, 74'); and
a separate axle (16) which can be inserted into the axle channel from
10 either side of the pre-assembled drum core (12), insertion of the axle (16)
into the axle channel establishing in either case a form-fit rotary coupling
between the spring anchor hub (80, 80') and the axle (16).
2. Construction kit according to Claim 1, wherein the form-fit rotary coupling
15 between the spring anchor hub (80, 80') and the axle (16) is provided by
a key (84, 84').
3. Construction kit according to Claim 2, wherein:
the form-fit rotary coupling between the spring anchor hub (80, 80') and
20 the axle (16) is provided by a cylindrical key (84, 84') which is housed
with a loose fit in a longitudinal bore provided in the spring anchor hub
(80, 80'); and
the axle (16) is provided with a longitudinal cylindrical key groove (88).
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4. Construction kit according to one of Claims 1 to 3, wherein the pre-
assembled drum core (12) is equipped with two ball bearings (32, 32') of
equal size, each forming one exit hole of the axle channel in the drum
core (12).
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5. Construction kit according to Claim 4, including a fixing flange which can be fixed to one end of the axle (16) and has a cylindrical extension dimensioned so as to form with the inner ring of the two ball bearings (32, 32') a sliding fit.
- 5 6. Construction kit according to Claim 5, including a bush (18) which is inserted into the inner ring of the opposite ball bearing (32') and is dimensioned so as to form a sliding fit with the latter.
- 10 7. Construction kit according to Claim 6, comprising locking means to axially lock the bush (18) on the axle (16).
8. Construction kit according to one of Claims 1 to 7, including a slip ring unit (22) including:
- 15 a fixed slip ring stack (52) clamped to the second end of the axle (16);
and
a slip ring unit housing (60) with collectors (56);
- 20 the pre-assembled drum core (12) being provided on both sides for the slip ring unit housing (60) with means of attachment so that the slip ring unit (22) can be mounted on either side of the pre-assembled drum core (12) depending on the desired direction of unwinding.
- 25 9. Construction kit according to one of Claims 1 to 8, the pre-assembled drum core (12) containing:
- 30 a first spring unit (70') comprising a first spring cassette (72') and a first spiral spring (74'), the outer end of the first spiral spring (74') being seated on the first spring cassette (72');
a first spring anchor hub (80'), which is held axially in the axle channel by the outer end of the first spiral spring (74');

a second spring unit (70') comprising a second spring cassette (72') and a second spiral spring (74), the outer end of the second spiral spring (74) seating on the second spring cassette (70); and a second spring anchor hub (80).

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10. Construction kit according to Claim 9, wherein:
the second spring anchor hub (80) is held axially in the axle channel by the outer end of the second spiral spring (74);
10 when the axle (16) is inserted into the axle channel a form-fit rotary coupling is formed between the first spring anchor hub (80') and the axle (16) and between the second spring anchor hub (80) and the axle (16); and
the two spring cassettes (72, 72') are fixed in a rotation transmitting way to the housing of the drum core (12) so that the first and second spiral springs (74, 74') are coupled in parallel.
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11. Construction kit according to Claim 10, including at least one pin (90) for fixing at least one of the spring cassettes (72, 72') in a rotation transmitting way to the housing of the drum core (12).
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12. Construction kit according to Claim 9 in which:
the second spring anchor hub (80) is fixed in a rotation transmitting way to the first spring cassette (72');
insertion of the axle (16) into the axle channel results in a form-fit rotary coupling between the first spring anchor hub (80') and the axle (16), but not between the second spring anchor hub (80) and axle (16); and
25 the second spring cassette (72) is fixed in a rotation transmitting way, to the housing of the drum core (12), but the first spring cassette (72') is not, so that the first and second spiral springs (74, 74') are coupled in series.
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13. Construction kit according to one of Claims 1 to 12, wherein the housing of the pre-assembled drum core (12) is a cylindrical body, the shell of which directly forms a winding surface for a cable.
- 5 14. Construction kit according to Claim 12, including a set of round plates (20, 20'), one of these round plates (20, 20') being attached to each side of the pre-assembled drum core (12).